

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHO

LOCATION.--Lat 21°23'11", long 158°00'49", Hydrologic Unit 20060000, on left bank 300 ft upstream from bridge on Highway 90, and 0.3 mi southwest of former sugar refinery at Waipahu.

DRAINAGE AREA.--45.7 mi<sup>2</sup>.

PERIOD OF RECORD.--June to October 1951, December 1951 to October 1959, July 1960 to current year.

REVISED RECORDS.--WSP 1639: 1955(M). WSP 1937: Drainage area. WSP 2137: 1965.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.37 ft above mean sea level (by stadia survey). Prior to July 1, 1960, at site 300 ft downstream at datum 1.30 ft higher.

REMARKS.--Records computed by Vaughn Kunishige. Records good.

AVERAGE DISCHARGE.--46 years (water years 1953-59, 1961-99), 40.4 ft<sup>3</sup>/s (29,270 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft<sup>3</sup>/s, November 28, 1954, gage height, 14.82 ft, site and datum then in use, from rating curve extended above 730 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow for part of February 25, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 31	0445	*1,350	*4.80	No other peak greater than base discharge.			

Minimum discharge, 14 ft<sup>3</sup>/s, October 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

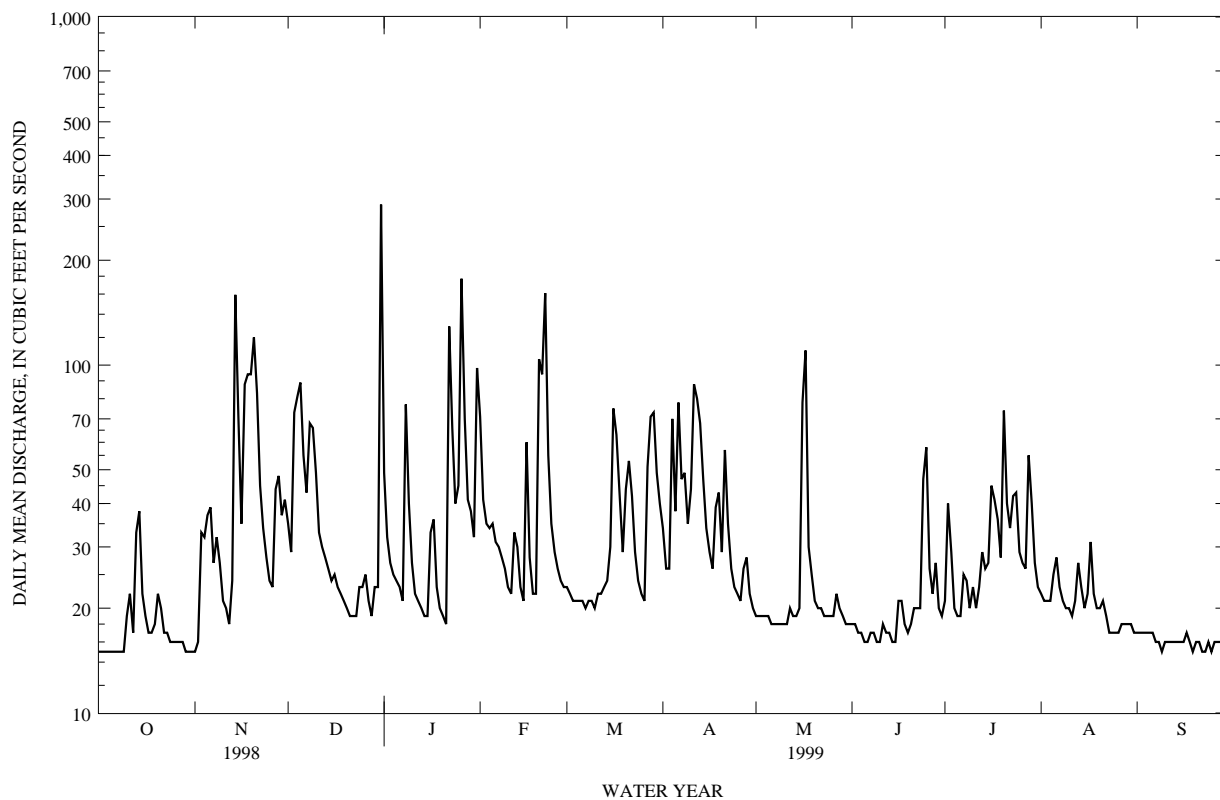
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	35	49	71	23	34	19	18	21	22	17
2	15	16	29	32	41	22	26	19	18	40	21	17
3	15	33	73	27	35	21	26	19	17	29	21	17
4	15	32	81	25	34	21	70	19	17	20	21	17
5	15	37	89	24	35	21	38	19	16	19	25	17
6	15	39	55	23	31	21	78	18	16	19	28	17
7	15	27	43	21	30	20	47	18	17	25	23	16
8	15	32	68	77	28	21	49	18	17	24	21	16
9	15	27	66	40	26	21	35	18	16	20	20	15
10	19	21	49	27	23	20	44	18	16	23	20	16
11	22	20	33	22	22	22	88	18	18	20	19	16
12	17	18	30	21	33	22	80	20	17	23	21	16
13	33	24	28	20	30	23	68	19	17	29	27	16
14	38	159	26	19	23	24	47	19	16	26	23	16
15	22	71	24	19	21	30	34	20	16	27	20	16
16	19	35	25	33	60	75	29	78	21	45	22	16
17	17	88	23	36	28	63	26	110	21	41	31	17
18	17	94	22	23	22	42	39	30	18	36	22	16
19	18	94	21	20	22	29	43	25	17	28	20	15
20	22	120	20	19	104	44	29	21	18	74	20	16
21	20	83	19	18	94	53	57	20	20	40	21	16
22	17	45	19	129	161	42	35	20	20	34	19	15
23	17	34	19	66	55	29	26	19	20	42	17	15
24	16	28	23	40	35	24	23	19	47	43	17	16
25	16	24	23	45	29	22	22	19	58	29	17	15
26	16	23	25	177	26	21	21	19	26	27	17	16
27	16	44	21	70	24	51	26	22	22	26	18	16
28	16	48	19	41	23	71	28	20	27	55	18	16
29	15	37	23	38	---	73	22	19	20	40	18	17
30	15	41	23	32	---	49	20	18	19	27	18	16
31	15	---	289	98	---	40	---	18	---	23	17	---
TOTAL	558	1409	1343	1331	1166	1060	1210	758	626	975	644	483
MEAN	18.0	47.0	43.3	42.9	41.6	34.2	40.3	24.5	20.9	31.5	20.8	16.1
MAX	38	159	289	177	161	75	88	110	58	74	31	17
MIN	15	15	19	18	21	20	20	18	16	19	17	15
AC-FT	1110	2790	2660	2640	2310	2100	2400	1500	1240	1930	1280	958

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1999, BY WATER YEAR (WY)

MEAN	32.6	50.4	49.3	60.3	54.1	54.0	49.5	32.6	24.2	29.6	25.9	22.5
MAX	97.8	198	146	222	179	195	235	99.3	51.5	76.8	90.0	68.1
(WY)	1992	1966	1966	1969	1955	1991	1963	1965	1980	1989	1958	1994
MIN	7.22	12.2	13.3	14.7	7.72	6.13	18.4	14.9	10.6	9.08	7.50	6.28
(WY)	1978	1954	1954	1986	1978	1978	1961	1954	1981	1985	1984	1975

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHU--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1953 - 1999	
ANNUAL TOTAL	9628		11563		40.4	
ANNUAL MEAN	26.4		31.7		77.3	
HIGHEST ANNUAL MEAN					18.5	
LOWEST ANNUAL MEAN					2590	
HIGHEST DAILY MEAN	289	Dec 31	289	Dec 31	.61	Mar 21 1991
LOWEST DAILY MEAN	15	Aug 16	15	Oct 1	2.5	Feb 25 1978
ANNUAL SEVEN-DAY MINIMUM	15	Sep 30	15	Oct 1	29270	Feb 24 1978
ANNUAL RUNOFF (AC-FT)	19100		22940		63	
10 PERCENT EXCEEDS	41		59		24	
50 PERCENT EXCEEDS	19		22		12	
90 PERCENT EXCEEDS	16		16			



HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHU--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-95, January to September 1999.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1973 to September 1981. January to September 1999.

WATER TEMPERATURE: April 1973 to September 1981. January to September 1999.

SUSPENDED-SEDIMENT DISCHARGE: July 1972 to August 1993.

INSTRUMENTATION.--Specific conductance and temperature monitor from April 1973 to September 1981, and January to September 1999. Automatic water-quality (point) sampler from March to September 1999.

REMARKS.--Water-quality samples were collected monthly beginning in March 1999. Monthly samples were collected near the centroid of flow using the open-bottle sampling method. Additional samples were collected during storm events (May 16 and June 25) using an automatic (point) sampler located on the left bank of the stream. Missing daily record from Jan. 18 to Mar. 2 was caused by vandalism.

EXTREMES FOR THE PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded (water years 1974, 1976-81), 796 microsiemens per centimeter, Dec. 1, 1980; minimum (water years 1974, 1976-80), 30 microsiemens per centimeter, Apr. 19, 1974.

WATER TEMPERATURE: Maximum recorded (water years 1973-74, 1976-81), 30.0°C, May 6, 1973; minimum (water years 1974, 1976-81), 16.0°C, Mar. 16, 1976.

SEDIMENT CONCENTRATION: Maximum daily mean, 3,420 mg/L, Feb. 7, 1976; minimum daily mean, 1 mg/L, Mar. 16, 20-22, 1989, July 10, 1990.

SEDIMENT DISCHARGE: Maximum daily, 32,200 tons, Apr. 19, 1974; minimum daily, less than 0.01 ton, Aug. 29, 30, 1992.

EXTREMES FOR THE CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 723 microsiemens per centimeter, May 26; minimum, 93 microsiemens per centimeter, May 16.

WATER TEMPERATURE: Maximum, 24.5°C on several days; minimum, 19.5°C, Mar. 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
MAR									
15...	1250	30	96	8.3	412	22.5	12	11	2.2
APR									
19...	1350	37	--	--	271	21.5	6.8	6.6	1.5
MAY									
12...	1300	20	90	7.7	455	23.0	13	11	2.2
16...	2200	308	--	--	93	22.5	4.2	2.5	2.4
JUN									
08...	1030	16	93	7.9	503	22.5	14	12	2.4
25...	0640	68	--	--	159	21.5	5.1	3.8	1.2
JUL									
16...	1050	36	90	7.7	278	23.0	8.3	7.1	1.7
AUG									
10...	1120	22	83	7.2	443	22.5	13	12	2.1
31...	1300	17	91	7.7	498	23.5	--	--	--
SEP									
09...	1000	16	80	7.0	521	22.0	14	14	2.3

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WATER-QUALITY RECORDS

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS MGO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
MAR									
15...	48	54	66	80	.1	47	15	<.02	<.1
APR									
19...	28	31	38	48	<.1	27	8.9	.03	<.1
MAY									
12...	50	58	71	83	.1	49	16	.02	.1
16...	8.4	20	24	11	<.1	7.3	4.5	<.02	E.08
JUN									
08...	58	59	72	98	.1	55	19	.06	E.07
25...	18	20	--	27	<.1	15	6.2	.07	.3
JUL									
16...	32	36	44	51	.2	31	9.1	<.02	.2
AUG									
10...	54	55	67	85	.1	55	18	.02	.1
31...	--	62	75	--	--	--	--	--	--
SEP									
09...	64	61	74	100	.1	61	21	.04	E.08

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAR								
15...	E.08	1.2	<.01	.14	.15	.16	271	40
APR								
19...	.1	.51	<.01	.073	.06	.096	160	22
MAY								
12...	.2	1.3	<.01	.15	.14	.17	284	38
16...	1.7	.25	<.01	.046	.04	.58	62	<3
JUN								
08...	<.1	1.6	<.01	.17	.19	.18	336	45
25...	.5	.36	<.01	.043	.04	.11	96	12
JUL								
16...	.2	.74	<.01	.083	.08	.12	172	24
AUG								
10...	.1	1.3	<.01	.16	.14	.17	278	34
31...	--	--	--	--	--	--	--	--
SEP								
09...	.1	1.7	<.01	.19	.20	.19	314	38

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	PH WATER FILTERED FIELD (STAND- ARD UNITS) (99900)
MAR			
15...	.7	.3	7.6
APR			
19...	1.4	.5	12.0
MAY			
12...	1.5	--	5
16...	3.4	>4.3	1180
JUN			
08...	.4	.3	3
25...	4.5	2.3	45
JUL			
16...	1.9	.6	17
AUG			
10...	.7	.3	7
31...	--	--	6
SEP			
09...	.4	.3	4

E Estimated

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHU--Continued  
WATER-QUALITY RECORDS

		ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)		
JUN 25...		28	<1	<1	3	<1	<1	<1.0	<1		
JUL 16...		6	<1	<1	4	<1	<1	<1.0	<1		
AUG 10...		2	<1	<1	6	<1	<1	<1.0	<1		
SEP 09...		2	<1	<1	7	<1	<1	<1.0	<1		
DATE		COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)		
JUN 25...		2	<1	<1	<1	<1	<1	<1	<1		
JUL 16...		<1	<1	<1	<1	<1	<1	1	<1		
AUG 10...		4	<1	<1	<1	<1	<1	3	<1		
SEP 09...		1	<1	<1	<1	<1	<1	<1	<1		
DATE		2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
JUN 25...		<.003	<.002	<.002	<.002	<.004	<.002	<.002	E.0124	<.003	<.004
JUL 16...		<.003	<.002	<.002	<.002	<.001	<.002	<.002	<.003	<.003	<.004
AUG 10...		<.003	<.002	<.002	<.002	.0062	<.002	<.002	<.003	<.003	<.004
SEP 09...		<.003	<.002	<.002	<.002	.0058	<.002	<.002	<.003	<.003	<.004
DATE		CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
JUN 25...		<.004	<.002	<.002	.0083	<.001	<.017	<.002	<.004	<.003	<.003
JUL 16...		<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
AUG 10...		<.004	<.002	E.0029	<.002	<.001	<.017	<.002	<.004	<.003	<.003
SEP 09...		<.004	<.002	E.0040	<.002	<.001	<.017	<.002	<.004	<.003	<.003

E Estimated

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHU--Continued  
WATER-QUALITY RECORDS

DATE	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT (UG/L) (82686)	METHYL PARA- THION WAT FLT (UG/L) (82667)	METO- LACHLOR WATER (UG/L) (39415)	METRI- BUZIN WATER (UG/L) (82630)	MOL- INATE WATER FLTRD (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)
JUN 25...	<.004	<.002	<.005	<.001	<.006	<.002	<.004	<.004	<.003	<.006
JUL 16...	<.004	<.002	<.005	<.001	<.006	<.002	<.004	<.004	<.003	<.006
AUG 10...	<.004	<.002	<.005	<.001	<.006	<.002	<.004	<.004	<.003	<.006
SEP 09...	<.004	<.002	<.005	<.001	<.006	<.002	<.004	<.004	<.003	<.006
DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT (UG/L) (82683)	PEB- ULATE WATER FILTRD (UG/L) (82669)	PER- METHRIN CIS WAT FLT (UG/L) (82687)	PHORATE WATER FLTRD (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)		
JUN 25...	<.004	<.004	<.004	<.005	<.002	<.018	<.003	<.007		
JUL 16...	<.004	<.004	<.004	<.005	<.002	<.018	<.003	<.007		
AUG 10...	<.004	<.004	<.004	<.005	<.002	<.018	<.003	<.007		
SEP 09...	<.004	<.004	<.004	<.005	<.002	<.018	<.003	<.007		
DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)		
JUN 25...	<.004	<.013	.0160	<.010	<.007	<.013	<.002	<.002		
JUL 16...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.002		
AUG 10...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.002		
SEP 09...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.002		

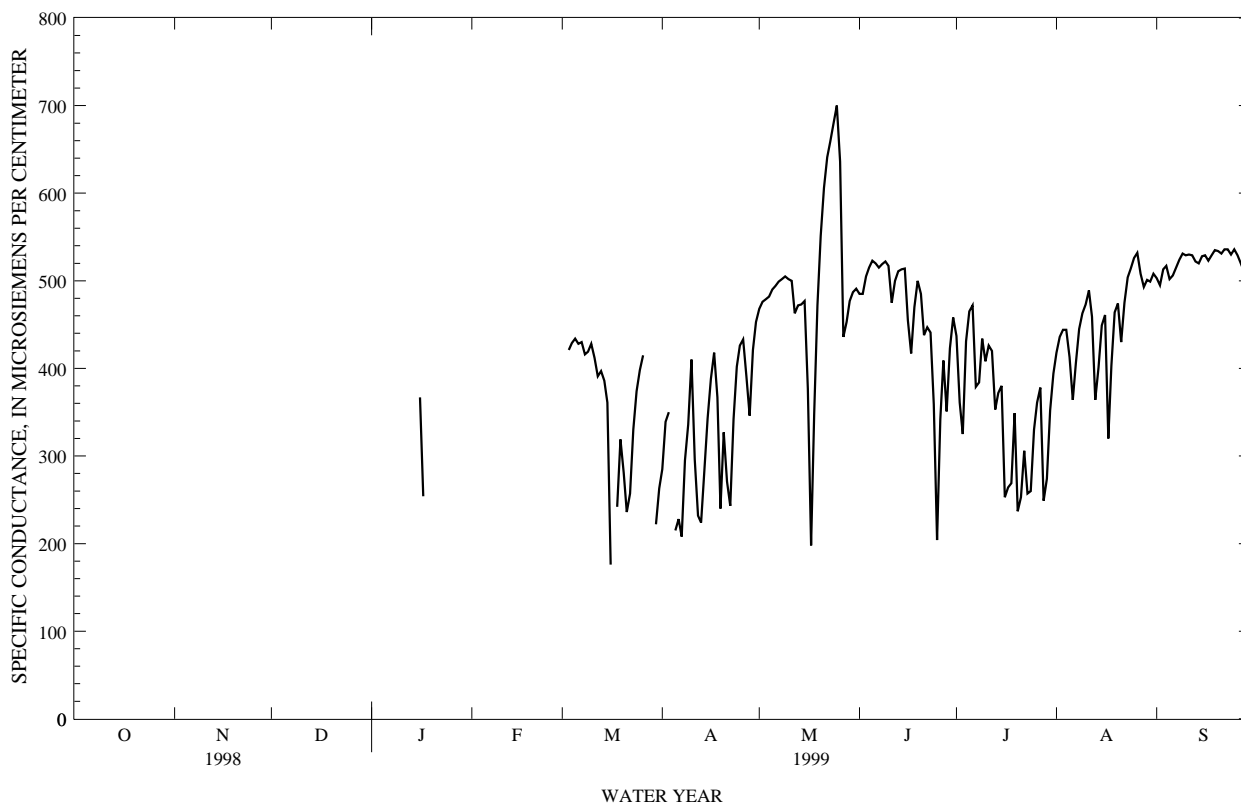
HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHO--Continued  
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	434	170	367
17	---	---	---	---	---	---	---	---	---	321	170	254
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	312	258	285	474	464	468
2	---	---	---	---	---	---	360	312	339	479	473	476
3	---	---	---	425	418	421	383	289	350	481	475	479
4	---	---	---	435	425	429	---	---	---	497	467	482
5	---	---	---	436	432	434	258	173	215	500	480	490
6	---	---	---	432	426	428	328	104	228	502	488	494
7	---	---	---	431	428	430	282	134	208	504	496	499
8	---	---	---	430	404	416	308	282	295	506	500	502
9	---	---	---	422	406	419	383	305	336	508	501	505
10	---	---	---	438	420	428	425	383	410	507	494	502
11	---	---	---	439	359	412	411	196	296	521	469	500
12	---	---	---	408	369	391	256	210	232	497	443	463
13	---	---	---	408	386	397	240	210	224	487	455	472
14	---	---	---	397	374	386	337	225	283	486	461	473
15	---	---	---	415	221	361	360	336	343	483	444	477
16	---	---	---	232	146	176	408	360	388	484	96	377
17	---	---	---	---	---	---	440	404	418	271	113	198
18	---	---	---	295	175	242	439	202	367	420	271	348
19	---	---	---	343	295	319	298	204	240	519	420	472
20	---	---	---	361	209	281	352	298	327	578	519	551
21	---	---	---	253	193	236	373	181	271	627	578	606
22	---	---	---	299	227	257	298	188	243	650	627	641
23	---	---	---	359	299	330	384	298	342	668	647	659
24	---	---	---	389	359	374	421	377	402	690	668	680
25	---	---	---	408	387	398	431	421	426	714	682	700
26	---	---	---	434	403	415	439	428	433	723	480	636
27	---	---	---	---	---	---	449	296	391	484	414	436
28	---	---	---	212	155	182	395	303	346	468	434	453
29	---	---	---	---	---	---	443	395	421	484	468	477
30	---	---	---	272	171	222	469	435	453	493	484	487
31	---	---	---	286	228	263	---	---	---	496	488	491
MONTH	---	---	---	---	---	---	---	---	---	723	96	500

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHO--Continued  
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	496	480	485	475	379	437	429	406	418	513	466	503
2	491	481	485	424	136	361	451	419	436	505	470	495
3	510	491	505	402	174	325	449	430	444	535	495	513
4	523	509	515	454	402	431	453	433	444	535	507	517
5	526	519	523	475	454	465	454	327	413	523	486	502
6	522	518	520	479	445	472	394	332	364	515	493	506
7	519	511	515	445	319	379	434	366	406	534	494	515
8	525	516	519	404	355	384	461	426	445	532	497	524
9	528	512	522	450	404	434	470	460	463	532	530	531
10	523	514	517	452	370	408	493	455	473	538	507	529
11	516	452	475	450	400	426	493	472	489	533	528	530
12	509	490	500	455	376	420	476	418	459	532	521	529
13	514	509	511	410	319	353	418	343	364	532	504	522
14	515	511	513	393	347	372	431	369	401	534	497	520
15	516	513	514	417	318	380	465	431	449	538	504	528
16	518	337	455	318	188	253	475	292	461	539	509	529
17	447	371	417	308	173	264	366	275	320	532	502	523
18	490	447	470	329	189	269	439	366	403	536	512	529
19	508	490	500	375	323	349	491	439	464	538	531	535
20	510	430	485	385	133	237	496	399	474	545	526	534
21	451	426	438	306	196	253	451	399	430	549	509	531
22	472	417	447	335	256	306	493	451	475	539	531	536
23	464	414	441	311	210	257	513	493	504	542	529	536
24	485	126	359	318	195	260	535	495	514	544	505	530
25	282	126	204	355	292	330	541	504	526	545	531	536
26	391	282	342	369	348	361	541	512	532	539	518	529
27	423	391	409	393	354	378	535	486	508	532	491	520
28	406	320	351	354	163	249	503	483	493	528	498	511
29	447	389	423	326	197	274	506	495	501	521	490	504
30	473	443	458	376	326	352	513	476	499	527	492	513
31	---	---	---	406	376	394	513	500	508	---	---	---
MONTH	528	126	461	479	133	349	541	275	454	549	466	522





HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHO--Continued  
WATER-QUALITY RECORDS

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	23.0	20.5	21.5
17	---	---	---	---	---	---	---	---	---	21.5	20.0	21.0
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	23.0	21.0	22.0	23.0	21.5	22.0
2	---	---	---	---	---	---	23.0	21.0	22.0	23.5	21.5	22.0
3	---	---	---	22.5	20.5	21.5	23.0	21.0	21.5	23.0	21.0	22.0
4	---	---	---	22.5	20.5	21.5	21.5	20.0	21.0	23.5	21.0	22.0
5	---	---	---	23.0	21.0	21.5	23.0	20.0	21.0	23.5	21.0	22.0
6	---	---	---	22.0	21.0	21.5	21.5	20.5	21.0	23.5	21.0	22.0
7	---	---	---	23.0	21.0	21.5	23.0	20.0	21.0	23.5	21.0	22.0
8	---	---	---	23.0	21.0	22.0	23.0	21.0	22.0	23.5	21.0	22.0
9	---	---	---	23.0	21.5	22.0	23.5	20.5	22.0	24.0	21.5	22.5
10	---	---	---	22.5	21.0	21.5	23.0	21.0	22.0	23.5	21.5	22.0
11	---	---	---	23.5	21.0	22.0	22.0	20.5	21.0	23.0	21.5	22.0
12	---	---	---	23.0	21.5	22.0	22.0	20.0	20.5	23.0	21.5	22.5
13	---	---	---	23.0	21.5	22.0	22.5	20.0	21.0	23.5	21.5	22.5
14	---	---	---	22.5	21.0	21.5	22.5	20.0	21.5	24.0	21.5	22.5
15	---	---	---	22.5	21.0	21.5	23.0	20.5	21.5	23.5	21.5	22.5
16	---	---	---	22.0	20.5	21.0	23.0	20.5	21.5	24.0	21.5	22.5
17	---	---	---	23.0	20.5	21.0	23.5	21.0	22.0	22.5	21.0	22.0
18	---	---	---	22.0	20.5	21.0	23.0	21.5	22.0	24.0	21.0	22.5
19	---	---	---	21.5	20.5	21.0	23.0	20.5	21.5	24.0	22.0	22.5
20	---	---	---	21.0	20.0	20.5	22.5	21.0	21.5	23.5	21.5	22.5
21	---	---	---	21.5	19.5	20.5	22.0	21.0	21.5	23.0	21.5	22.0
22	---	---	---	22.0	20.0	21.0	22.5	20.0	21.0	23.5	21.5	22.5
23	---	---	---	22.5	20.5	21.5	23.5	21.0	22.0	24.0	21.5	22.5
24	---	---	---	23.0	21.0	21.5	24.0	21.0	22.5	24.0	21.5	22.5
25	---	---	---	23.0	20.5	21.5	24.0	21.5	22.5	23.0	21.5	22.0
26	---	---	---	23.0	21.0	22.0	23.5	21.5	22.0	23.5	21.5	22.5
27	---	---	---	23.0	21.0	22.0	24.0	21.5	23.0	23.5	22.0	22.5
28	---	---	---	22.0	20.5	21.5	23.5	21.5	22.5	23.5	21.5	22.5
29	---	---	---	22.5	20.5	21.5	23.0	21.5	22.0	23.0	21.5	22.0
30	---	---	---	22.5	20.5	21.0	23.0	21.0	22.0	23.0	21.5	22.0
31	---	---	---	23.0	21.0	22.0	---	---	---	23.5	21.5	22.5
MONTH	---	---	---	---	---	---	24.0	20.0	21.7	24.0	21.0	22.3

HAWAII, ISLAND OF OAHU  
16213000 WAIKELE STREAM AT WAIPAHO--Continued  
WATER-QUALITY RECORDS

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	21.5	22.5	24.5	21.5	22.5	22.5	22.0	22.5	24.0	21.5	22.5
2	23.5	21.5	22.5	23.5	22.0	22.5	24.0	21.5	22.5	23.5	21.5	22.5
3	23.5	21.5	22.0	24.0	21.5	22.5	22.5	21.5	22.0	23.5	21.5	22.5
4	24.0	21.5	22.5	23.5	21.5	22.5	23.0	22.0	22.5	23.5	21.5	22.0
5	23.5	21.5	22.0	23.5	21.5	22.5	24.0	22.0	23.0	24.0	21.5	22.5
6	24.0	21.5	22.5	23.5	21.5	22.5	24.5	22.5	23.5	23.5	21.5	22.5
7	24.0	21.5	22.5	24.5	22.0	23.0	24.5	22.0	23.0	23.5	21.5	22.0
8	24.0	21.5	22.5	24.0	22.5	23.0	24.0	22.0	22.5	23.0	21.5	22.0
9	23.0	21.5	22.0	23.5	22.0	22.5	24.0	21.5	22.5	23.5	21.5	22.0
10	23.5	21.5	22.0	24.0	21.5	22.5	24.0	21.5	22.5	23.5	21.5	22.0
11	23.5	21.5	22.5	24.0	22.0	22.5	23.5	21.5	22.5	23.0	21.5	22.0
12	24.0	21.5	22.5	23.5	22.0	22.5	24.0	21.5	22.5	23.5	21.5	22.0
13	24.0	21.0	22.5	23.5	22.0	22.5	24.5	22.5	23.5	23.5	21.5	22.0
14	23.5	21.5	22.0	23.0	22.0	22.5	24.5	22.5	23.0	23.5	21.5	22.0
15	23.0	21.5	22.0	23.5	22.0	22.5	24.5	22.0	23.0	23.5	21.5	22.5
16	24.5	21.5	22.5	24.5	22.0	23.0	24.0	22.0	23.0	23.0	21.5	22.0
17	23.0	22.0	22.5	23.5	22.0	22.5	24.0	23.0	23.5	23.0	21.5	22.0
18	24.0	21.5	22.5	24.0	22.0	22.5	24.0	22.0	23.0	23.5	21.5	22.0
19	23.0	21.5	22.0	23.5	22.0	23.0	23.5	21.5	22.5	23.5	21.5	22.0
20	24.0	21.5	22.5	24.5	22.5	23.5	22.5	21.5	22.0	23.0	21.5	22.0
21	24.5	22.0	23.0	23.0	22.0	22.5	24.5	21.5	22.5	23.5	21.5	22.0
22	24.0	21.5	22.5	24.0	22.0	23.0	24.0	21.5	22.5	23.5	21.5	22.0
23	24.0	21.5	22.5	23.5	22.0	23.0	23.0	21.5	22.0	23.0	21.5	22.0
24	24.5	21.5	23.0	23.0	21.5	22.0	24.0	21.5	22.5	23.5	21.5	22.0
25	23.5	21.5	22.5	24.0	21.5	22.5	23.5	21.5	22.0	22.5	21.0	21.5
26	23.5	22.0	22.5	24.5	22.5	23.0	23.5	21.5	22.0	23.5	21.0	22.0
27	24.0	21.5	22.5	24.5	22.5	23.0	24.0	21.5	22.5	23.0	21.0	22.0
28	24.5	22.0	23.0	24.5	22.5	23.5	23.5	21.5	22.5	22.5	21.5	22.0
29	23.5	22.0	22.5	23.0	22.0	22.5	24.0	21.5	22.5	23.0	21.0	22.0
30	23.5	22.0	22.5	24.0	22.0	23.0	23.5	21.5	22.5	23.5	21.5	22.0
31	---	---	---	24.5	22.0	23.0	23.5	21.5	22.5	---	---	---
MONTH	24.5	21.0	22.4	24.5	21.5	22.7	24.5	21.5	22.6	24.0	21.0	22.1

